

REMARKS

Claims 1-4, 6, 7, 9-11 and 15-25 are pending in this application. By this Amendment, claims 1 and 9 are amended, claims 5, 8 and 12-14 are canceled and claims 15-25 are added. No new matter is added. Reconsideration and withdrawal of the rejection is respectfully requested.

Applicants thank the Examiner for the indication that claims 5 and 9-11 contain allowable subject matter.

I. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-4, 6 and 7 under 35 U.S.C. §102(a) over U.S. Patent Publication No. 2003/0045131 to Verbeke et al. (Verbeke). This rejection is respectfully traversed.

The rejection of claim 1 is rendered moot due to the incorporation of the allowable subject matter of claim 5. Also, claim 9 is written in independent form.

For at least these reasons independent claims 1 and 9 and the claims dependent therefrom are patentable over the applied reference. Thus, withdrawal of the rejection of the claims is respectfully requested.

II. Claims 15-25

Support for newly added claim 15 can be found in the specification at, for example, page 18, line 2 - page 19, line 6 and Fig. 3. Support for newly added claims 16-21 can be found in the specification at, for example, original claims 2-7. Support for newly added claims 22 and 23 can be found in the specification at, for example, page 21, lines 2-7. Support for newly added claims 24 and 25 can be found in the specification at, for example, page 19, line 20 - page 20, line 24. No new matter is added.

Independent claim 15 recites, *inter alia*, "a first liquid supply system connected to the coating chamber and supplying the liquid material to the coating chamber; a second liquid

supply system connected to the coating chamber and supplying a deactivation agent for deactivating the liquid material to the coating chamber; and a third liquid supply system connected to the coating chamber and supplying a cleaning agent for cleaning to the coating chamber."

According to the coating apparatus of newly added claim 15, the coating apparatus includes a coating chamber, a first liquid supply system, a second liquid supply system and a third liquid supply system. The first liquid supply system, the second liquid supply system, and the third liquid supply system supply a liquid material, a deactivation agent, and a cleaning agent, respectively. Also, these liquid supply systems are connected to the coating chamber, respectively.

Based on claim 15, a substrate is coated with the liquid material supplied by the first liquid supply system so as to form a thin film on the substrate. Furthermore, using the deactivation agent and the cleaning agent, it is possible to remove or render harmless liquid material which remains in the coating chamber.

In contrast, Verbeke discloses a method and an apparatus for processing a wafer. More specifically, a single wafer wet cleaning module 200 is shown in Fig. 2A of Verbeke. This cleaning module 200 includes a plate 202 and a plurality of acoustic or sonic transducers 204. The wafer 208 is mounted on the plate 202. The acoustic or sonic transducers 204 are located on a back face of the plate 202. Cleaning chemicals and rinsing water such as DI-H₂O are fed through a nozzle 214 to generate spray 220 of droplets which form a liquid coating 222 on the top surface of wafer 208 while water is spun. In the cleaning module 200, the transducers 204 create acoustic or sonic waves, thereby the wafer 208 is cleaned.

More specifically, the cleaning module 200 includes three pipelines through which cleaning chemicals such as diluted HF, rinsing water, such as DI-H₂O, and cleaning solution flow, respectively.

However, Verbeke does not disclose the features of added claim 15. Though the cleaning module 200 Verbeke includes three pipelines, the cleaning module 200 does not supply the liquid material for forming a thin film on the substrate, and the deactivation agent for deactivating the liquid material.

The cleaning module 200 of Verbeke is used for cleaning the wafer 208. Therefore, if the liquid material for forming the thin film is supplied to the wafer 208 in the cleaning module 200, it is impossible to clean the wafer 208 because the thin film is formed on the wafer 208.

Furthermore, Verbeke discloses cleaning chemicals, rinsing water, and cleaning solution. However, these solutions do not function as deactivation agents. Therefore, Verbeke does not disclose the liquid material and the deactivation agent of independent claim 15. Accordingly, the applied reference fails to teach or suggest each and every feature of independent claim 15. Also, the applied reference does not suggest the subject matter recited in claim 15.

For at least these reasons, independent claim 15 and the claims dependent therefrom, are patentable over the applied reference.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Obert H. Chu
Registration No. 52,744

JAO:OHC/mdw

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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